

TOYS IN WARTIME



SUGGESTIONS TO PARENTS
ON MAKING TOYS IN WARTIME

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TOYS IN WARTIME

THE MEANING OF PLAY

Play is a necessary part of the development and education of every child. For wholesome constructive play children need toys, they need a place to play, they need playmates, and they need sympathetic adults.

The war takes away toys made of rubber and steel and plastics, toys made by machines and men needed for making urgent war supplies. The war sometimes means moving families into cramped quarters that make adequate play space hard to find. The war takes away fathers and makes mothers find extra work outside the home. In time of war it takes thought and careful planning by parents to see that the children's needs are met as well as conditions will allow.

Many toys of substitute materials can now be bought in the stores. But parents and children too, with some guidance, can also find or make play materials at home. The present pamphlet, it is hoped, will be helpful in suggesting how this may be done.

Play is the means by which the baby and the young child learn about the world, learn to use their own bodies, learn to understand people. The baby learns the meaning of hard and soft by feeling, touching, handling, playing with all sorts of things. He learns to recognize objects by seeing them, by listening, by smelling, by tasting-- by using all his senses. He learns to creep, to walk, to run, to climb, he uses his muscles to move himself, and he uses his brain to imitate all the many things he sees going on about him. He learns important lessons of the give and take of human relations by playing with other children.

As the child gets older he continues to learn about the world through play. He becomes increasingly observant, and the more things he comes in contact with the wider will be his field of knowledge and the more varied will be his play.

Children re-live in their play the experiences they have had in real life. A child sees mother sweep the kitchen, so he wants to sweep. Or he watches the policeman direct traffic and he builds a street with his blocks and plays red and green light. If he lives on a farm and sees father milk the cows he will make imaginary cows and milk them. When he sees soldiers saluting officers as they pass, he will want to tie on a soldier's belt and salute his friends. Life becomes real to a child as he himself does things. It is through this type of imitative play that the child really comes to understand what is going on about him.

Children sometimes "let off steam" through play. If a child pounds a piece of clay into a fearsome beast, perhaps he is working off some rebellion against necessary parental restraint and he may be a little less likely to pound a playmate. Belligerent play is often a safety valve for children, and the wise parent will not scold a youngster for it nor even look pained or shocked.

Children's play takes color from the world in which they live. In wartime children are likely to re-live the war in their play. Some of this war play is probably like other imitative play—a dramatization of the life and talk about them. But war lends itself particularly well to the expression of violent emotion and children are quick to seize upon it to express those feelings of their own that they are not allowed to express directly. Before the war cowboys and Indians, cops and robbers,

gangsters and G-men dominated certain kinds of play. Now it is apt to be soldiers and sailors. The playing of war games is the reaction of normal healthy children to war.

To see that each child gets the most out of his play, parents will want to provide him with a place to play where he can be free to do things without danger of hurting himself or harming the possessions of others; things to play with that will provide him with the knowledge of his surroundings, hard things, soft things, little things, big things,— simple things for the very young child, more complicated things for the older child— things with which he can dramatize the world about him, things that will stimulate him to use his developing body, to climb, to balance, to run, to dig, to build. Last but by no means least parents will want their children to have playmates—both children and adults.

Good toys are toys with which the child can do things; playthings that are just looked at are of little value. Many of the best toys are used by children of widely differing ages. Blocks and sand and painting materials, for example, are used in a simple way by the toddler but their use continues all through childhood. It is good for a family to have some of these toys that interest children of different ages. They help to keep the family together. They interest the children of the neighborhood and pave the way for companionship among children of different ages as well as those of the same age—companionships which mean much in the development of children.

A child does not grow up in a little world all his own. He lives and grows with his family, and he shares their fortunes with them. It is good that this is so. The child wants to belong to his parents;

he likes to feel that he is a part of the family and as he grows older has a part in the family planning. This is part of his education. Of course the very young child needs to be protected from the family worries, although he can share many of the family joys. Parents need ever be on the alert to protect children from overwhelming burdens but not to exclude them from things they can share.

In wartime parents are called upon in many unusual ways to aid their country. They are asked to go without many things they have come to depend upon. In most homes there is much talk of war, how the war is being fought, of what we are fighting for, of what our victory will mean to us, and to others.

Children cannot help but feel this war atmosphere. They want to be part of it and they should be. Don't overburden a child with ideas he cannot possibly understand, don't frighten him with imaginary—or even real—dangers, but explain as much as he can take in and find ways in which he can contribute toward the victory we are all straining every fiber to achieve.

One way in which children can take part is by being willing to give up those things which our country needs for actual war materials. Even quite young children can understand that rubber balls are made of the same thing as tires and that we have to send every bit of rubber to the Government for tires for Army trucks and tanks. Older children can help not only by foregoing some of their cherished toys but by devising substitutes for themselves and for their younger brothers and sisters.

Many of the toys described can be made by the children themselves, for themselves or for their younger brothers and sisters. Parents should encourage the children to make them, both for the development of skills and for the feeling of satisfaction that comes from their participation in this family enterprise. It is well for the children to do their part even if the toys they make are not so perfect as those that could be made for them.

Parents can suggest using the toys in ways that stimulate and develop the active imagination of children. For example, the family might have a doll show on a homemade stage with a curtain woven at home and homemade dolls' furniture, and might dress up for the occasion. The children who are collecting natural objects such as rocks or leaves can be encouraged to make scrapbooks, cabinets, or a work table with partitions where they can keep their collections. Those who learn to model in clay or to carve in soap might make a collection of animals in paper cages, perhaps after a trip to the zoo. With blocks and pull toys a complete town might be made—house and garage, fire engine, railroad, and so forth.

The planning and making of toys out of the materials which are still abundant in this country can be a family occupation. It is fun to talk about and plan at the supper table. The actual making of the toys is a pleasant occupation for many a Saturday and can perhaps take the place of those trips and visits to friends and relatives that the shortage of gasoline and tires makes impossible. Families that can get together over a home toy project not only are conserving essential war materials but also are building up family solidarity and making a contribution to the war effort.

TOYS FOR FEELING, CHEWING, SEEING, LISTENING

The child from 8 or 9 months to 1½ to 2 years wants toys that will give him as many new sensations as possible.

Spools.

Empty spools of various sizes, sandpapered and polished, plain or painted (see p. 36 for safe paint for children) make good playthings.

Make a string of spools of the same size or of graded sizes. With spools of various sizes make a figure like a doll. Draw a face on the top spool. Use strong tape to hold the spools together. (Fig. 1.) 1/

A box containing a few spools makes a delightful sound when shaken.

Clothespins.

Use clothespins that do not have a spring. Paint them if you like. The baby will like to shake them in a box and dump them out. Later the child will find that clothespins stuck on the top of an empty box are fun to pull off and put back. (Fig. 2.) The clothespins and the box may be painted different colors. As the child gets a little older he may enjoy having a set of boxes and pins of different colors. He can then put a pin on the box that matches it in color or mix up the colors.

Pieces of wood.

A piece of wood may be whittled to any shape for the baby to play with so long as it does not have sharp points. The wood should be sandpapered and polished to make it free from splinters.

Spoons.

The baby will enjoy any household spoons--wood, metal, or

1/ All illustrations may be found at the back of the pamphlet.

composition material-- , and if his mother can stand the racket she may give him an old pie tin to bang on.

Dolls or animals.

Patterns for many rag dolls or animals may be obtained from the companies making clothes patterns. Sometime's newspapers or magazines run patterns for rag dolls. A satisfactory doll for a young child can be made by stuffing an old stocking and tying a string around it to make a head and body. A towel tied in the middle to make a knot, makes a doll that appeals to many young children. Such a doll can be untied readily and washed.

BLOCKS AND BUILDING MATERIALS

Blocks are excellent play materials. They have a great variety of uses. The young child learns from them the "feel", as well as the looks, of objects of different shapes and sizes. He finds out for himself how they fit together. As he grows older he learns to build with them according to his level of development and the range of his imagination. Blocks stimulate initiative and planning and give the child a great outlet for dramatic play. Both boys and girls will play with them off and on from the time they can creep until they are well along in school.

The year-old baby will enjoy small, light blocks that he can handle easily--blocks that are simple to pile up and to put together. As the child gets older he likes larger, heavier, and more complicated building materials. He will make buildings, streets, railroad yards, farm yards--anything he has seen or perhaps imagined.

The surface must be smooth, so that the child will not injure himself. All wooden blocks must be well sandpapered to prevent splintering.

If blocks are painted, a kind of paint that is safe for children should be used. (See page 36)

Table blocks.

For the baby or for a little child at times when he is to sit quietly—when he must stay in bed, or just before mealtime on an active day--small blocks are useful. For blocks to pile up cubes 1 inch on a side are satisfactory. They may be all the same size or they may be different sizes. Dimensions for a set of table blocks might be as follows:

<u>Number of blocks</u>	<u>Size in inches</u>
8	1 x 1 x 1
4	1 x 1 x 2
2	1 x 1 x 4

Blocks that fit together may be any shape that can be made with the tools at hand—squares, triangles, circles, or parts of circles. Holes in blocks can be made if an auger is available. Short pencils, clothespins, round moulding, or a peg whittled from any piece of wood can be used to fit in these holes and fasten blocks together.

Floor blocks.

For indoor play on the floor or for play on the porch a set of medium-size blocks is desirable.

If new material is to be used, plan the sizes of the blocks so

that several smaller ones together are the size of the larger ones. For example, the dimensions for a set of floor blocks might be as follows:

<u>Number of each size</u>	<u>Size in inches</u>	<u>Number of each size</u>	<u>Size in inches</u>
4	2 x 2 x 2	4	2 x 4 x 4
8	2 x 2 x 4	8	2 x 4 x 8
8	2 x 2 x 8	8	2 x 4 x 16
8	2 x 2 x 16		

Such a set could be made from leftover pieces of 2 by 4 lumber which may be around the house or can be bought at small cost. A piece of round lumber might be cut into the same lengths as the other blocks to make pillars.

Arches, Y's, and curves can be made if special tools are available, and such special blocks are usually much enjoyed by the child for roadways, windows, doors, switches, and many other things.

If the wood cannot be sawed at home perhaps the 2 by 4 can be sawed at small cost at a lumber yard.

Outdoor blocks and other articles for outdoor play.

For active play outdoors children like to build all sorts of structures into which they can crawl or on which they can stand and climb. Large wooden blocks for these structures are better if made hollow, so that they will not be too heavy. Such blocks can be made all the same size, and a good size is about 12 by 6 by 12 inches. Blocks of other sizes may be made also but each dimension should be a multiple of the standard size. Six to twelve blocks make a good set. The best lumber for such blocks is plywood; $\frac{1}{4}$ inch thickness three-ply is satisfactory if the ends are solid wood. Plain lumber, either new

or old, may be used; it should be thick enough to be sturdy but not so thick that the finished block will be heavy. Three-eighths to one-half inch lumber is satisfactory. The sides of the blocks should be glued together as well as nailed or screwed. The corners and edges should be rounded with sandpaper. Finger holes can be made in the ends so that the child can pick up the blocks easily.

The children will enjoy having a few boards to use with their blocks. Cleats near the ends make the boards easier for children to manage and prevent slipping when the planks are used as inclined planes. A sawhorse, if there should be one around, will be used by children to rest the long boards on to make slides or slopes to run on, or saesaws. Old wooden packing cases, if obtainable, are much enjoyed by children. A piece of heavy rope 6 feet or so long is useful for play with outdoor blocks.

Blocks made out of discarded materials.

Cardboard boxes.—The boxes in which oatmeal and other cereals are packed make good blocks. Salt boxes with a spout appeal to a 2 year-old, who enjoys opening and closing the spout.

When you plan to use a box after it is empty, open it carefully. If it has a cover that can be removed, open the box by taking off the cover, not by punching a hole in the top. If the box does not have a cover, make a smooth hole. When the box is empty, fasten the cover down with adhesive tape or cover the hole in the top with adhesive tape. Let the child help you put on the adhesive tape and explain to him why it is necessary. Then he will not be so tempted to pull it off.

Very large boxes can be used outdoors to make buildings into which the children can crawl. These boxes, however, are seldom sturdy enough to stand up under long service, especially if they are left outdoors overnight.

Wooden boxes, kegs, and buckets.—Fruit boxes, cigar boxes, cheese boxes, or any sturdy wooden boxes of appropriate size may be used as blocks. Nail or screw the covers on securely and plane or sandpaper the surface to make sure there are no rough places. Sometimes a large enough number of similar boxes can be obtained to make a good set of building materials.

The kegs that nails come in, the buckets that salt fish are packed in, and other buckets and kegs may be used by the young child. Care should be taken to see that the containers are empty and clean, that no nails or screws stick out, that there are no sharp edges or splintery wood.

Other things with which the child can build.

Old magazines.—A pile of old magazines will sometimes provide many hours of joy to a young child. He uses them to build roads and railroad tracks. Sometimes he will pile them up to make towers.

Spindles.—In parts of the country where textiles are manufactured it is often possible to obtain from the factories discarded spindles from the looms. These spindles make good additions to building materials for the young child.

GOURDS

A variety of toys, and other articles too, may be made from the squash-like fruit commonly known as gourds. A vine of gourds in the backyard will not only supply many useful gourds, but the growing of the vine, the preparation of the fruit, and the making of it into toys provide occupations in which the children and adults of the family find companionship and mutual enjoyment.

There are some 600 varieties of gourds, of many shapes, sizes, and colors, some of which are quite easy to grow. Gourds require a good garden soil, plenty of sun, a minimum of rain, a support on which to grow, and a growing season of about 5 months. The seeds may be planted indoors and transplanted to the garden when all danger of frost is past. Packets of mixed gourd seeds may be bought, and usually have directions at what time to harvest each variety (See Useful and Ornamental Gourds, Farmers' Bulletin 1849, U. S. Department of Agriculture.)

When the gourds are picked several inches of stem should be included with each one and the gourd should be hung up by the stem in a cool, airy place where the light is not too bright. When the shell is dry and the seeds rattle the gourd is ready for use.

Gourd rattles.

A gourd may be used by the baby as a rattle, or two may be used by older children as musical instruments to beat rhythms for dances or to produce special effects in home orchestras. Gourds have occupied a prominent place in the musical life of many Indian tribes.

A bottleneck gourd may be used as a rattle just as it is after drying (Fig. 3), but a better tone is obtained if the pulp is taken out. Make a hole in the gourd and scrape out the contents with a piece of looped wire. Put the seeds or some small stones back into the gourd. The hole must be closed up, and the most satisfactory way to do this is to insert a round stick of wood through the hole. There are several ways of fastening a handle to a gourd rattle. In a bottleneck gourd the hole for cleaning may be made by sawing off the neck about 1 inch from the body and wedging the handle into this opening. If a round gourd is used the hole for cleaning may be bored with a brace and bit ($\frac{3}{8}$ of an inch is a good size) and a handle made as shown in the drawing (Fig. 4), and fastened with a screw at the opposite side of the gourd. The handle should be fastened with special care because if it came loose and the seeds or pebbles spilled out, the baby might swallow some.

The gourd rattle may be decorated in any way that suits the fancy of the maker. A coat of varnish or shellac will help to preserve it.

Gourd dippers.

A bottleneck gourd may be cut to make a dipper (Fig. 5) for use in the sandbox or in a pool.

Gourd bird house.

• • • A hole is bored in the center of a large bottleneck gourd and the gourd hung up where birds can get to it. Several gourds may be hung side by side to make a larger bird house. (Fig. 6.)

Gourd bowls.

Round gourds may be cut in half to make bowls. If gourds of different sizes are used a set of nesting bowls may be made which are always appealing to a young child. Gourd bowls may be decorated both inside and out.

THINGS TO PULL

As soon as a young child becomes accustomed to walking and is able to do it without too much falling he likes to pull things around after him. Almost anything with a string attached will be dragged by the child. A dragged toy gets very hard wear and should be very sturdy. An empty spool tied to the end of the string gives the child something easy to hold on to. (Fig. 7.)

Plank.

A planed and sandpapered piece of wood about an inch thick and of any convenient size, may have a string attached to one end for pulling. The string can be attached by boring two holes through the plank and chipping away enough of the wood between the two holes on the under side of the plank to permit the string to remain above the dragging surface (see sketch 16).

Plank train.

Several pieces of wood may be fastened together in one of several ways as follows:

(a) Put a large hook on one plank and a staple on the next into which the hook will fit. (Fig. 9.)

(b) With a brace and a bit bore a hole part way through each plank near one end. Into the hole fasten a short round wooden peg (dowel) by gluing it, wedging it into the hole, and driving a nail into the peg from the other side of the plank. Place the planks with the pegged ends together. In a smaller piece of wood make a hole at each end to fit easily over the peg and fasten two planks together with it as shown in the sketch. Attach a pull string to the first piece of wood. (Fig.10.)

Pull toy made from spools.

Use several spools of the same size, the larger the better. Cut two pieces of wood, about 12 by 15 inches long and narrower than the diameter of the spools. Place two crosspieces to fasten the strips together at the back and front as shown in the illustration (Fig. 11). Place the spools between the strips so that they do not touch. Hammer nails through the strips of wood so that they go into the holes in the spools and form axles on which the spools will turn. Attach a pull string to the crosspiece at one end.

With a little more trouble this toy can be made with joints so that it will pull over many irregularities such as door sills, rugs, or even small blocks. To make it jointed, cut the wooden side strips just long enough to join two spools together. Overlapping strips can then be used to attach the pairs of spools into a train of any desired length. (Fig.12.)

TRANSPORTATION TOYS

Toy cars, trucks, trains, airplanes have in the past filled a large section of the toy counters of the stores, and have been enjoyed by the young Americans who have grown up in the motor age. Most of these toys

have been made of metal and these will disappear from the stores as the current stocks are used up, but substitutes of other materials will take their place.

Wooden cars and wagons have been made at home by nailing and gluing together blocks of wood that give the general outline of the various kinds of vehicles in common use. For quite young children they can be used without wheels, but children of 6 or 7 or a little more will be anxious for wheels on their cars. Button moulds, or round moulding sawed into sections about half an inch wide may be nailed loosely onto a wagon for wheels. (Fig. 13.)

Tanks, trucks, tractors, railroad cars can all be made in this way. Pictures in newspapers and magazines or in catalogs will provide ideas for shapes of various vehicles.

Airplanes are not so easy to imitate as cars, but two pieces of wood nailed together at right angles will suggest an airplane to an imaginative child.

TOYS FOR WAR PLAY

Children playing at war will want soldiers—perhaps to put in the tanks and planes they have built—and guns for the soldiers to carry.

Toy soldiers.

Toy soldiers are wanted usually in numbers—at least six to a dozen. They may be made of wood. The simplest construction is a small block of wood that will stand up by itself, with a picture of a soldier pasted or painted on it. If something more is desired the wood may be

cut into a wedge-shaped block, which will stand upright on its wide base. The outline of a soldier (or any other figure desired) can be painted on this block and cut out with a jig saw. Front and back views of the figures can be painted on the block. (Fig. 14.)

Guns.

Childish imaginations are very fertile and it is not necessary to have a toy gun look very much like a real one. A piece of wood shaped roughly like a gun, perhaps with a little paint to add to the illusion, will satisfy most children.

Things To String

From the age of about 4 years to adolescence the child will enjoy making strings of various things from time to time. The younger child should be given large objects to string and those that already have holes in them. The older child can use smaller objects and can make holes in them when he is able to manage a sharp needle. Some supervision is desirable, especially when the children are using sharp needles or making holes in such hard things as corn kernels or peas. A child should not be given such small objects to string where they might be picked up and swallowed by a younger brother or sister. Nor should strings of small articles that might be swallowed if the string broke be given to very young children to play with.

The string or thread used for stringing should vary with the weight of the article being strung. A shoestring is suitable for toys for a young child. The needle used for stringing will vary, too, with the article being strung and the age of the child. For those things that

have a hole in them a blunt needle is desirable. For the young child it is better to stiffen the end of the string by moistening it in melted paraffin, so that a needle is unnecessary. For those things that have to have holes made in them at the time of stringing a short, sharp, strong needle is needed.

The following list is suggestive only of things that may be strung:

Macaroni—Break up the long pieces into short lengths.

Elbow macaroni—The odd shape makes an interesting effect, although the pieces are harder to string than straight pieces.

Dried seeds of many kinds—

Corn kernels.

Peas.

Beans, many varieties.

Winged maple seeds.

Melon, squash, and pumpkin seeds.

Seeds of many wild plants.

Dried pods, plain or painted.

Sea shells—Some shells have holes in them which can be used for stringing. Others must have holes bored in them. This is easy to do if a drill is available.

Sea weed, dried, various kinds.

Popcorn—At Christmas time long strings of popcorn make effective decorations for the Christmas tree.

Cranberries—These bright red berries also make effective Christmas decorations.

Other hard berries such as barberries, wintergreen berries, juniper berries.

Flowers—Almost any flower that grows, wild or cultivated, can be strung or braided into chains.

Spools are easy to string and can be enjoyed by quite young children.

Buttons—odd shapes, sizes, and colors.

Home-made beads.

Mix two cups of flour and one cup of salt with enough water to make a thick dough. Color with beet juice, cake coloring, or bluing. Divide into small pieces, roll into balls, and make a hole in the center of each with a nail. When dry they will be ready for stringing.

Wedge-shaped pieces of paper may be made into beads. The colored sections of magazines or funny papers have interesting colors. Cut the paper as shown in the sketch (Fig. 15), wet it, and roll it tight over a match stick. When it is dry the stick can be pulled out, leaving a hole for stringing. These beads may be shellacked.

Drawing, Painting, Writing

Almost all children love to paint and draw and many children are able to express themselves and their feelings in this way, who find it very difficult to do so in language. Children are likely to be "messy" with paint and it would be well for a grown-up to be near when they are using it. Children should be encouraged to keep scrapbooks of their creative activities, such as drawing, painting, writing, and music.

Blackboard.

If one lives in a part of the country where slate can be obtained readily a large slab fastened to the wall in some convenient place will give much joy not only to the young child who draws and scribbles on it, but to the older child who writes and figures as well.

Where slate cannot be obtained, very satisfactory blackboards may be made of wood. Well-seasoned, dry wood is necessary, so that the board will not warp. Hard wood makes a better surface than soft wood. The surface must be well planed and then sandpapered as smooth as possible. A final smoothing with powdered emory and water is desirable but not absolutely essential. The surface should then be given a coat of flat black blackboard paint, the paint allowed to dry, the surface rubbed with emory powder and water or fine sandpaper, and another coat of paint applied. The second coat of paint should again be rubbed down with emory powder and sandpaper. Two coats are sufficient, although an additional coat makes a harder finish. The final surface should be finished with emory powder or sandpaper.

The dustless variety of white chalk is less messy about the house than the ordinary variety. Certain kinds of sandstone can be used in place of chalk.

Easel.

A home-made easel for drawing or painting on paper may be made from an old crate or box. On the back of the box nail an upright piece of wood about 1 by 2 by 24 inches and another small piece of wood on the top of the box, shown in the sketch. Have a piece of wall board,

heavy cardboard, or lightweight soft wood about 2 by 3 feet. Lay this over the upright and let it rest on the support in front. The center of the board should be opposite the child's chest. The paper may be fastened to this board with thumbtacks or pins. If the box or crate from which the base was made had a partition it will serve as a useful shelf on which to keep supplies. (Fig. 16.)

Paper for use with easel.—Newsprint is the most satisfactory and can often be obtained cheaply from a newspaper publishing house, but it may not be possible to get now. Old wrapping paper, shelf paper, paper bags may all be used. The cheapest kind of paper is quite satisfactory for easel paintings for young children. Even old newspaper may be used for children of 4 or younger. The paper should be at least as large as a single sheet of newspaper-- the larger the better.

Colorings and paints.—Water-color paints wash easily out of clothing and off hands or face and for this reason are much better for young children than oil paints. Those that are prepared especially for children to use should be safe. For the young child a jar of plain water is often quite satisfactory. A little coloring may be added. Beet juice makes a good red, grape juice a purple, spinach water a good green, and household bluing a good blue. For other colors cake coloring bought in the grocery store does very well. (See page 26.)

Brushes.—Brushes, $\frac{1}{2}$ to 1 inch wide, with long handles, are needed by the young child, smaller brushes, for work on small sheets of paper, by older children.

Fingerpainting.

Young children love to paint with their hands as well as with

brushes, and if a few simple arrangements are made they may be allowed the fun of getting into it with both hands. Even blind children enjoy fingerpainting.

For fingerpainting a smooth, washable flat surface is needed; an easel will not do. A child's low table is almost always satisfactory. The table should be put in some place where a little spilled water will do no harm. When the weather permits outdoors is a good place for fingerpainting.

The paper used for fingerpainting needs to be glazed on one side. Ordinary shelf paper that comes in rolls (about 25 cents for a large roll) is satisfactory. Such a roll will last for a long time. A piece of oilcloth can be used for fingerpainting. It may be washed off and used over and over. It does not, however, give the child the satisfaction of having a "finished painting".

The paint for fingerpainting may be made as follows:

Laundry starch, 6 tablespoonfuls.
Cold water.
Boiling water, 1 quart.
Oil of cloves, 1 drop.
Coloring

Mix the starch with a little cold water. Pour the mixture slowly into one quart of rapidly boiling water. Stir constantly until the mixture thickens; if it becomes too stiff some soap flakes may be added. Add the oil of cloves. (This is pleasant but not essential.) Stir well. Divide into three or four parts and color each part a different color with water-color paints especially prepared for use by children (see p. 36) or with cake or frosting colors, beet juice, grape juice, spinach water, or household bluing.

How to fingerpaint.—Cut a piece of glazed paper of a size that will fit easily on the table—about 12 by 24 inches. Wet it on both sides, put it down on the table, shiny side up, and smooth out all the wrinkles with wet hands. With a spoon put a scant teaspoonful of paint on the paper, with wet hands smear the paint over the paper, using both hands and a free arm and shoulder motion. Many effects can be obtained with fingers, fingernails, and fists, and even arms. The young child may be satisfied with only one color, but slightly older children enjoy mixing colors on their painting. When the painting is finished, pull it off the table, and hang it up to dry. When dry the painting may be pressed on the back with a hot iron.

Fingerpainting is apt to be quite messy and for that reason a grown-up should be nearby whenever a child uses fingerpaint. Cleaning up afterward should be part of fingerpainting.

CUTTING AND PASTING

As soon as the very young child is able to manage a pair of blunt-ended scissors he enjoys cutting. At first he "just cuts"; the thing made is of little importance. But from the time he is 3 or 4 until he is through school he may like to make things with paper or paste cuttings in a scrapbook.

Small children just learning to use scissors should not be permitted to use sharp-pointed scissors. Unless a pair of blunt-end ones can be bought or found for him the child had better forego the joys of cutting until he is old enough to be trusted with a pair of sharp-pointed scissors.

Scissors, like any other tool, should be well made. They should move easily at the joint and have good cutting edges.

For paste stir a few teaspoonfuls of ordinary flour with enough water to make a thin mixture and cook the mixture over a double boiler until it thickens. This paste should be made up fresh each time it is needed.

Scrapbooks.

Soon after the child can cut out pictures from magazines he usually becomes interested in pasting them into a scrapbook. Making a scrapbook is an occupation that children of all ages--and adults too--can enjoy. What goes into a scrapbook depends upon the age and skill of the maker, together with his interests or hobbies. The 5-year-old will like just bright pictures. A scrapbook of cars may interest the 8-year-old boy; a current-events scrapbook may appeal to the 12- to 14-year-old. The contents of a scrapbook can be as varied as the interests of the child who makes it.

When it can be obtained a large notebook makes an ideal scrapbook, but when paper is scarce substitutes may have to be found.

Newspaper can be used for the pages of a scrapbook, even though it is not so desirable as plain paper. Cloth can be used also. Scraps of old cotton clothing, the more different colors the better, make good pages in a scrapbook. An old sheet can be used, and if the mother has time to do it the pieces can be dyed with food colorings or vegetable juices.

Cut the pieces of paper or cloth to the size wanted for a scrapbook and bind them together with a cord. New pages can be added from time to

time. A cover for the scrapbook should be heavy enough not to tear too easily. For it a piece of cardboard or several thicknesses of newspaper may be covered with cloth, oilcloth, colored paper, an old window shade, or almost any flexible material at hand. A thin slab of plywood or a piece of linoleum makes excellent covers, and in those parts of the country where it can be obtained birch bark may be used. The cover for the scrapbook may be decorated as its maker's imagination may suggest.

Paper chains

Cut narrow lengths of paper. Colored paper is best, and colored pages of old magazines can be used; but any paper, even newspaper, will do. Put the first together as a ring, fastening with paste. Put the next together by slipping through the first (Fig. 17), then pasting. Long chains can be made in this way. The making of the chain is the chief joy, but the chains can be used to decorate the Christmas tree or the child's room.

Pinwheels.

Cut a square of fairly stiff paper. Cut from each corner nearly to the center, fold every other point to the center, and fasten the points with a stout pin through the center of the paper onto a stick (Fig. 18). The least breath of wind makes a pinwheel turn.

Paper mats.

Fold a piece of paper in half, in quarters, then in eighths. Cut off the corners where it is folded. Open it and see the design made. Many variations of the folds and cuts can be worked out.

MODELING AND CARVING

In some parts of the country there are clays that can be used for modeling. Try the kind that is near where you live.

Several kinds of clay can be bought. Clay is sold in powdered form to be mixed with water as desired, or by the pound as moist clay. Moist clay must be kept wet and covered to prevent it from hardening. Oiled clay that does not harden can be bought.

Modeling material can be made at home as follows: Mix 2 cups of flour with 1 cup of salt, 1 tablespoonful of powdered alum, and $1/3$ cup of water. Color with vegetable dye or bluing. This material will remain pliable for weeks if kept in a moist cloth. Wall-paper cleaner and bread dough are also good plastic materials.

A piece of soap that is not too dry can be used for carving. A potato, a carrot, or other vegetable can be carved into attractive animals.

WEAVING AND BRAIDING

Wool is, of course, very satisfactory for weaving, but in wartime it must be conserved. Heavy cotton yarn may be used. It is inexpensive, comes in attractive colors, and is plentiful. Discarded clothing can be cut into long, thin strips for weaving.

Old silk and nylon stockings are wanted for war purposes now, but rayon stockings can be used for weaving. They can be cut lengthwise of the stocking to make long strips, or crosswise making a circular strip that may be woven into small squares. The stockings can be dyed in attractive colors before they are cut.

Looms.

A loom can be made at home. Its size depends upon the material to be woven and the purpose to which the finished product will be put. Small looms are on the whole more satisfactory for children than large ones because finishing a small piece of weaving gives the child a pleasant feeling of accomplishment.

With fairly heavy material to weave, a loom about 10 inches by 15 inches is satisfactory. If a wooden box about this size is at hand it can be used to construct the loom, if not, four pieces of wood can be nailed together to make a frame. On two opposite sides of the box or frame (the narrow sides) nails are partly hammered in, leaving enough protruding to tie strips for the warp (Fig. 19). Through the strands of the warp long strips of cloth or yarn can be woven. A smooth piece of wood can be whittled out for a bobbin. (Fig. 20.)

A loom for weaving cross pieces of stockings is made as the one just described, but it must be the size to stretch taut the circular pieces of stocking (Fig. 21).

Braiding.

Tie three strands of material to the bedpost and braid them. Such braided rope can be used as reins to play horse. If heavy enough they can be used for jumping rope. If they are made of the right kind of material they can be sewn together into a braided rug.

DOLLS AND DOLL HOUSES

Both boys and girls like to play with dolls during the preschool years. A corner of the playroom may be set aside for dolls and doll furniture. Most girls continue their interest in dolls up to their teens and the older boys may enjoy helping by building doll houses and making furniture.

Dolls.

Dolls can be made of clothespins, pipe-cleaners, raffia or worsted, or rags. A towel or a large handkerchief can be tied to make a satisfactory doll for a young child.

The doll's corner.

In the doll's corner the furniture needs to fit the dolls as well as to be sturdy and simple for the young housekeeper's use. An old box or crate can be used for a doll's bed. It may be best to put the doll to bed on top of the box rather than in it, so as to tuck the covers around the doll. A few pieces of cloth for covers are essential. A cotton pad for mattress and a small pillow add to the child's pleasure.

A chair or a cradle for the doll can be made from an oatmeal box.

Doll house.

For the child of 8 years or more, making the doll house and its furnishings is a large part of the fun. Children often need some help in the construction, but it is better to let them do as much as they can.

An orange crate does very well for a doll house (Fig. 22). If the wood is rough some coarse sandpaper will smooth it down. If the crate

stands on end, the partition serves to make a second floor. Holes cut in the side of the box with a key-hole saw make windows. The holes may be left open or they may be covered with oiled paper or cellophane.

With a little adult guidance some little girls get a great deal of pleasure and satisfaction from designing and carrying out a scheme of interior decorating for a doll's house, which can be very simple or more elaborate. Scraps of old cloth can be used for curtains, drapes, rugs, and furniture covering. Sometimes a sample book of wallpaper can be obtained. If the child is interested in color, a yard of white cloth and some vegetable dyes will provide material for many combinations. Pictures in magazines may be helpful in suggesting colors and arrangements. If the child's interest grows, a library may be consulted for books on interior decorating.

Designing the outside of the doll's house often interests boys as well as girls. It may be painted a solid color, or it may have a contrasting color for trim, or, if the child is very ambitious, bricks may be painted on the house. Small pieces of wood next to the windows make shutters, two boards can make a roof, a little clay makes a chimney, gutters and leaders can be made from straws, and small boxes make rain barrels.

Doll furniture.

Furniture for the doll's house can be made from old spools, small boxes, and clothespins. Cloth is needed for upholstery and a pocket mirror makes a wall mirror.

Doll clothes.

Doll clothes need to be very simple so that the child can put them on and take them off without assistance. For the very young child a few squares of colored cloth to wrap around the doll make satisfactory clothes. He will enjoy clothes with different "feels." A scrap of silk or satin or even of velvet can often be added to the more usual cotton ones. For the slightly older child garments that open all the way down the front and have large armholes and buttons and buttonholes that clumsy little fingers can manage are desirable. Tapes may be used instead of buttons if the child can manage them.

Washing the doll's clothes.—A basin of water, some soap, and a place "that doesn't matter if it gets a little wet" are all that is needed. A low clothes line and a few real clothespins add to the realism. In summer the doll's wash can often be done outdoors.

DRESSING UP

Almost all young children love to dress up and be something different from what they are, and usually it is some adult they wish to copy.

A box of dress-up materials is useful. A few squares of colored or figured cloth, a long scarf, a hat, a pair of gloves, an old pair of spectacle frames (from which the lenses have been removed), a necktie or two, even an old window curtain will provide plenty of incentive to imaginative youngsters. Mother will sometimes be much amused at hearing the very intonation of her voice mimicked as a 4-year-old with a hat rakishly pulled over one eye greets her visitor draped in a long flowing cape and invites her to sit down.

Boys as well as girls enjoy dressing up, especially if the dress-up assortment includes such things as a policeman's hat, a soldier's belt, or a cowboy necktie.

SAND, GRAVEL, PEBBLES

All children love to dig. A sandbox will provide many hours of joy. Like blocks, sand provides the child with means of working out many of his imaginative ideas, and like blocks, sand lends itself to the needs of the child almost from babyhood to adolescence.

The very young child will fill a pail or an old kitchen utensil, and just pour sand out. As he gets a little older he will like to strain the sand, to make small cakes and pies. Older children like to build roads, cities, airports, and railroad yards, and make tunnels and other elaborate constructions. In wartime they will probably fight wars in the sandpile.

Ordinary building sand is satisfactory. It is a little more moist than sea sand and lends itself more readily to many types of construction. The sand should be watered as frequently as is necessary to keep it in good condition for building. It is easier and more satisfactory to keep the sand in a box than to have it in a pile. A large wooden box with tiny cracks between the boards in the bottom to let rain drain off makes a good sandbox. It should have a seat 10 inches to a foot wide all the way around it. A cover of either wood or heavy canvas will protect it from the rain and from pets.

Spoons and small shovels are the usual digging toys used in the sand. Clam shells make good toys; they can often be obtained free of

charge from the fish market. Gourds (see p. 12) can be used for digging. Pails, buckets, boxes, small moulds are all useful in the sand. A flour sifter, a strainer, an egg beater, a rolling pin, and many other kitchen utensils can be used. Trains, cars, airplanes, figures of people, all have their use in sand play as they do with blocks.

Sand toys need to be picked up every night and put in a dry place. The metal toys will rust quickly if left in the sand.

Where there is no sand children will enjoy digging in a gravel pit or a pile of pebbles.

If you would like to have your backyard the gathering place for the neighborhood children a big sandpile is almost all that is needed. Even the big boys will come around occasionally and carry out an elaborate sand project. Usually the young children welcome the older ones and a neighborhood comradeship builds up which is good for the big ones and little ones alike.

WATER PLAY

Children love to play in water. The young child likes to pour water from one container to another. As he gets a good deal on himself and his surroundings, it is best for him to play with water outdoors when it is warm enough for him not to need many clothes. A little water adds to the fun of sand play. A pool in which the child can dabble is a source of great joy. A big washtub will serve as a pool. A garden hose or a sprinkler can be used on hot days. Young children enjoy "painting" with plain water.

During the child's bath he may often be allowed a little extra time for play. Almost any toy that floats can be used in a bath.

SOAP BUBBLES

A good outdoor occupation for a warm summer afternoon is blowing soap bubbles. Sunshine falling on soap bubbles adds much to their beauty and interest. Make a thick soap suds in a flat-bottomed pan or bowl and give each child a clay pipe or a stick of macaroni.

STILTS

Stilts are made by nailing cross pieces on two uprights (Fig. 23).

KITES

Materials for kite making are sticks and paper and string. There are many kinds of kites, from extremely simple ones that can give pleasure to younger children to elaborate ones that the older boys enjoy making. The simplest way for the children to learn kite making is to watch and help the children who know how. Detailed directions with sketches are given in many books. A book on kite making is listed on page 39.

A very simple kite can be made by younger children. Two pieces of thin wood, one longer than the other, are fastened together at right angles about one-third of the way from one end of the longer piece. The whole thing is then covered with newspaper. A tail made of knotted rags is attached, which should be as long as is necessary to make the kite fly. This kite does not fly so well as the more elaborate ones, but it flies well enough to be a source of joy to its maker.

NATURAL OBJECTS

Acorns and the little caps that attach them to the stem make cups and saucers that appeal to many small children. They may be fitted with sticks for handles. Pine cones, stones of different shapes and colors, and sea shells make interesting playthings.

Leaves of trees and plants can be traced on a blackboard or on paper. Leaves pinned down on a piece of colored paper and exposed to the sun will leave a fine tracing design on the paper when removed.

Walnut shells make boats that bob around in a pool. A toothpick fastened with wax from a candle and stuck through a piece of paper in two places, makes the shell into a sailboat (Fig. 24).

WORK BENCH AND TOOLS

A child may enjoy helping father or mother make things, perhaps at the family work bench. He can work more comfortably at a work bench of his own that is the right height for him.

Buy tools thoughtfully, buy good ones, and take good care of them. Watching his parents use good tools carefully and keep them in good order helps the child to form good work habits. Give the child at first only a few tools such as hammer, saw, screwdriver, and pliers. As he grows older and makes more complicated things he will need others. Make sure his tools are sturdy and that they will do the job he expects of them. Toy hammers are of no use, for example, if the child is really to make anything with nails. Watch the hammer to see that the head is on securely and will not fly off. See to it that the child takes care of his tools.

With a small amount of equipment and some guidance children—sometimes quite small children—can be taught to repair broken toys and to make new ones.

KEEPING TOYS

Children need some place in which to keep their toys. If putting things away is easy, good habits are developed more readily than if cleaning-up time is an arduous chore.

Open shelves have proved to be the most satisfactory kind of storage space for toys. They are easier to keep in order than a chest. Shelves of different widths and heights hold more articles than shelves of the same size, and it is easier for the child to remember where each thing goes if its place looks a little different from the others.

Designing and making a toy cabinet can be an interesting and profitable family project. See that there is one long wide shelf for the drawing paper, that the paint has a place where it cannot be knocked off. Cardboard boxes or knife boxes can hold crayons, chalk, pencils, scissors, and other small articles. A box, gaily painted, makes a good container for beads or other articles to string. A nail or hook on the side of the toy cabinet or in the closet is useful for the jump rope. The blocks will need a place where they can be piled up, on a low shelf of the cabinet, in a bushel basket, or perhaps just in a corner of the room. A few hooks under one shelf of the cabinet could be used for the cups of the tea set and it would look like mother's china closet. A few labels on the shelves may help to remind the child old enough to read where each thing goes. Having a place to put each article teaches the child to be orderly and makes it easy for him to find what he wants.

PAINTS, PIGMENTS, AND DYES 2/

Some paints, when swallowed, are poisonous and since children are apt to put paint-smeared fingers in their mouths or to chew painted objects, thought should be given to providing paints that are harmless.

Commercial paints.

Water-color paints.—Water-color paints—powdered, liquid, or cake—that are prepared especially for children's use can be relied on as safe. Some artists' paints, however, contain lead and must not be given to children to play with.

Oil paints.—Oil paint produces a better effect upon wood than does water-color paint. Oil paint is much more difficult to get off hands, clothing, and floor than water-color paint, but more serious than the cleaning-up problem is that of eliminating the danger of poisoning to the child who gets some paint into his mouth from fingers or tools, or even from under the finger nails of "cleaned" hands. There are many safe oil paints and parents should learn the names of these paints and buy them by name.

Oil paint consists of a pigment—the coloring—and a liquid in which the pigment is dissolved or suspended. When oil paint is drying sometimes vapors are given off which are irritating to sensitive people. For this reason it is better for children not to remain in unventilated rooms in which there are freshly painted walls, furnishings, or other objects. Since some paint thinners may be poisonous, close application to work should be avoided. However, a child will not be likely to continue painting for a long enough time to be harmed.

2/ This section has been checked and approved by the National Bureau of Standards and the National Institute of Health.

Some pigments used in paint are poisonous when swallowed. They are harmful, whether sucked off damp fingers or from painted toys or furnishings.

Many paint manufacturers print the formula on each can of paint; a number of States require such a statement by law. Therefore, the label will usually furnish the information from which the poisonous paints can be distinguished from the harmless ones. Unfortunately, however, the terms used by the paint trade are not always readily understood by the public. Paint that contains any lead is poisonous and should be avoided. Some pigments in which the word "lead" does not appear are also poisonous.

The following lists contain the names of the most commonly used pigments. With this list as a guide a harmless paint can be selected in most paint stores. If a paint offered to you in a store is not in this list, it is not safe to take the word of a salesman as to whether it is harmless or not because he may not know.

Paints usually considered harmless

White paint

Aluminum and potassium silicate
or mica
Aluminum silicate or china clay
Barium sulphate or baryte
Calcium carbonates or ground
limestone
Calcium sulphate or gypsum
Lithopone
Magnesium silicates or talc
Silica
Titanium barium
Titanium calcium
Titanium dioxide
Titanium magnesium
Titanated lithopone
Zinc-sulphide barium
Zinc-sulphide calcium
Zinc-sulphide magnesium
Zinc oxide
Zinc sulphide

Paints that are poisonous

White paint

Basic lead
carbonate
Basic lead
sulphate
Lead titanate
Antimony oxide

Paints usually considered harmless--

Continued

Red paint

Chlorinated para
Iron oxide, red
Madder lake
Para red
Toluidine red

Orange paint

Medium lithol toner and
Hansa yellow

Yellow paint

Hansa yellow
Iron-oxide yellow

Green paint

Tungstated organic green
Phospho-tungstic green

Blue paint

Tungstated organic blue
Prussian blue
Ultramarine blue

Paints that are poisonous--

Continued

Red paint

Cadium red
Litharage or
red lead
Lithol red

Orange paint

Chrome orange
Molybdate orange
Orange mineral
lead oxide

Yellow paint

Chrome yellow
Cadmium yellow
Zinc yellow

Green paint

Chrome green
Lead-chromate
yellow and
iron blue

Blue paint

Copper
phthalocyanine
blue

List of References

The following books and pamphlets may be helpful in giving parents additional suggestions:

- The Art of Block Building, by Harriet M. Johnson. John Day Co., New York, 1933. 47 pp.
- Bird Houses Boys Can Build, by Albert F. Siepert. Manual Arts Press, Peoria, Ill.
- Craft Work; a series of lessons in the various crafts for the use of student and teacher, by Edna Selena Cave. Century Co., New York, 1929. 272 pp. (Ch. VII, Simple Toys and How To Make Them.)
- Home Play in Wartime, by Virginia Musselman. National Recreation Association, Inc., 315 Fourth Avenue, New York, 1942. 19 pp.
- How To Make Crepe Paper Flowers. Dennison Manufacturing Co., Framingham, Mass., 1939. 31 pp.
- How To Make Gay, Colorful Costumes of Crepe Paper. Dennison Manufacturing Co., Framingham, Mass., 1939. 31 pp.
- The Jolly Book of Playcraft, by Patten Beard. Frederick A. Stokes Co., New York, 1916. 226 pp.
- Kitecraft and Kite Tournaments, by Charles M. Miller. Manual Arts Press, Peoria, Ill., 1914. 144 pp.
- Paper and Cardboard Construction, by George F. Buxton and Fred L. Curran. Manual Arts Press, Peoria, Ill., 1913. 191 pp.
- Permanent Play Materials for Young Children, by Charlotte G. Garrison. Charles Scribner's Sons, New York, 1926. 122 pp.
- Play; the child's response to life, by Rose H. Alschuler and Christina Heinig. Houghton Mifflin Co., Boston, 1936. 244 pp.
- Play Materials Made from Waste, by Clara Lambert. Play Schools Association, Inc., 1841 Broadway, New York. (1942) 16 pp.
- Sealing Wax Craft. Dennison Manufacturing Co., Framingham, Mass., 1925. 36 pp.

- Toy-Making in School and Home, by Ruby K. and Mabel I. R.
Polkinghorne. G. G. Harrap & Co., London, 1921. 299 pp.
- Unique Simple Toys, by William W. Klenke. McKnight & McKnight,
Bloomington, Ill., 1935. 32 pp.
- Useful and Ornamental Gourds. U. S. Department of Agriculture
Farmers' Bulletin 1849, 1940. 18 pp.
- Weaving With Paper Rope. Dennison Manufacturing Co., Framingham,
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- Wooden Toy-Making, by Winifred M. Horton. Manual Arts Press,
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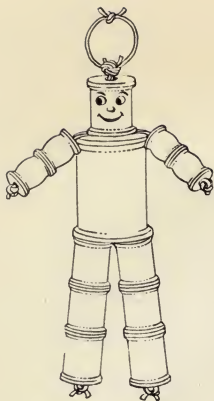


FIG. 1



FIG. 2

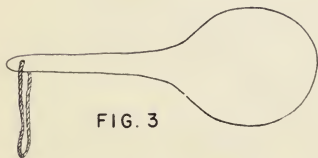


FIG. 3



FIG. 4

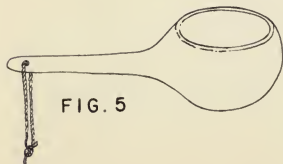


FIG. 5

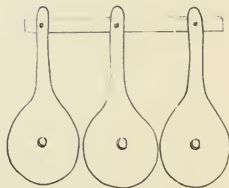


FIG. 6

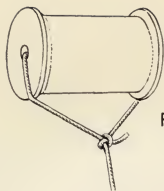


FIG. 7



FIG. 8

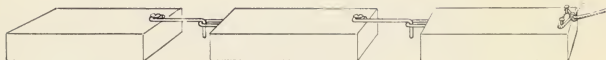


FIG. 9

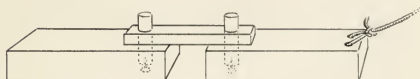


FIG. 10

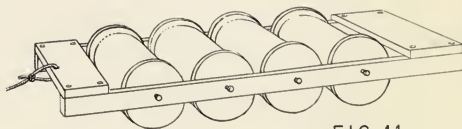


FIG. 11



FIG. 12

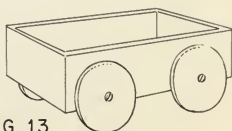


FIG. 13



FIG. 14

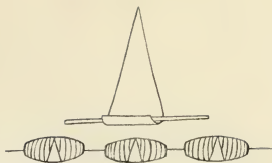


FIG. 15



FIG. 17

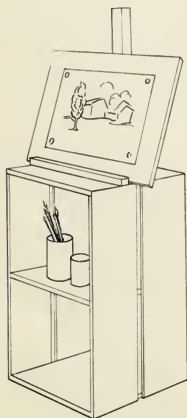


FIG. 16

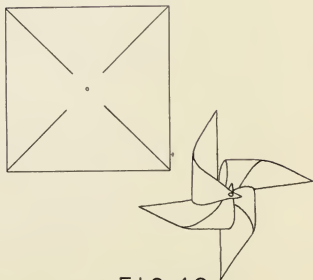


FIG. 18

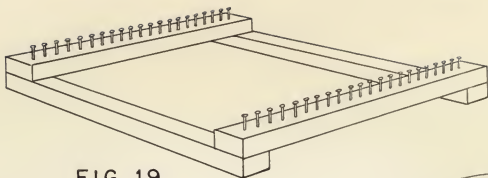


FIG. 19



FIG. 20

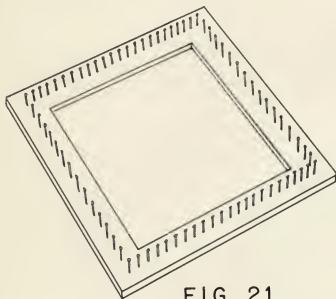


FIG. 21

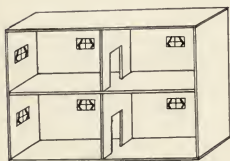


FIG. 22

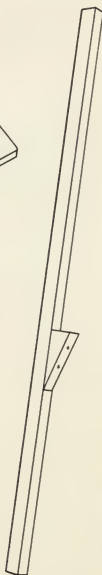


FIG. 23

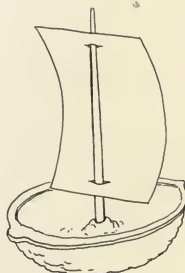


FIG. 24

